

2/6. 0-250,  
U.S. Army, Signal Corps.

**ANNUAL REPORT,**

1860/61-1866/69

OF THE

**SIGNAL OFFICER OF THE ARMY**

TO THE

LIBRARY

AUG 16 2002

National Oceanic &  
Atmospheric Administration  
U.S. Dept. of Commerce

SECRETARY OF WAR.

1861 to 1869.

RAREBOOK

UG

573

05

1861

WASHINGTON, D. C.

1861.

6961

# **National Oceanic and Atmospheric Administration**

## **Annual Report of the Chief Signal Officer, U.S. Army Signal Corps**

### **ERRATA NOTICE**

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages  
Faded or light ink  
Binding intrudes into the text

This document has been imaged through the support of the Climate Database Modernization Program, NCDC, Asheville, North Carolina. To view the original document, please, contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or [www.reference@nodc.noaa.gov](mailto:www.reference@nodc.noaa.gov).

Lason Systems, Inc.  
12200 Kiln Court  
Beltsville, MD 20704  
September 7, 2004

W/0000  
usp-1

# REPORT.

---

HEADQUARTERS ARMY OF THE POTOMAC, }  
Office of the Signal Officer, Washington, Nov. 30, 1861. }

SIR: I have the honor to submit the following summary report of signal operations, together with estimates for signal supplies for the proper equipment of the Army of the United States, for the period ending June 30th, 1862.

A report in detail, accompanied by official documents, will be laid before the Secretary of War as soon as is practicable. The pressure of other duties will prohibit the preparation of this report before the session of Congress.

At the breaking out of the existing rebellion, the Navajo campaign had just terminated. Military signals were in frequent use with the troops operating in the Navajo country, in the winter of 1860-61, and were used, under almost all circumstances of location, with expeditions in the Rocky Mountains. They were also used in the vicinity of Santa Fe.

Of the character and success of this use, the official reports of Lieutenant-Colonel E. R. S. Canby, commanding the Navajo expedition; of Colonel Th. T. Fauntleroy, commanding the Department of New Mexico; and of Colonel Loring, who afterwards commanded the same Department, afford, perhaps, the best commentary. These reports were duly submitted, through the Adjutant General of the Army.

The Signal Officer was relieved from duty in the department of New Mexico on May 6th, 1861. On June 10th, 1861, the organization and instruction of a signal party were commenced at Fortress Monroe. On June 26th, Fortress Monroe and the detached post of Newport News were put in communication, by signals; and permanent signal parties were stationed at each. These parties are still retained upon their stations.

Signals were used in Hampton Roads, to report the range of shells fired from the Rip Raps upon the enemy's battery at Sewell's Point. Signals were successfully employed upon several minor occasions.

On July 17th, 1861, I was ordered to report to General McDowell, then commanding the Department of Northeast Virginia. I reported to General McDowell at Centreville, July 21st, 1861. On July 22d, 1861, I returned to Washington. August 17th, 1861, I was assigned to duty as a member of the staff of General McClellan, then commanding the Division of the Potomac. On the same day, I was ordered, in instructions from the War Department, to open signal communication between the headquarters of Generals Banks and Stone and troops at and near Washington.

There was, at this time, attached to the Army of the Potomac, besides myself, but one instructed signal officer. There were no signal stores. Two other officers were summoned from Fortress Monroe. On August 26th, the party arrived at General Banks's headquarters, then at Hyattstown. On August 28th, signal communication was opened between his headquarters and those of General Stone, then at Poolesville. Signal parties were, on the same day, formed for instruction, at the headquarters of the Generals mentioned. On August 30th, the Signal Camp of Instruction was established at Georgetown.

Observatory stations were opened as fast as officers were fitted to occupy them. These stations have been extended as occasion has been given. They have been worked from Maryland Heights to Georgetown; and at a few hours' notice, they can be opened from below Fort Washington to Maryland Heights. The whole of Virginia opposite our lines is, for this extent, when desired, under the glasses of officers, who can report any movements of an enemy.

Fifty officers were detailed for signal duty with the Army of the Potomac. After due examination, forty-two of these were instructed in signals. The signal party has been organized, equipped, and instructed for instant service in the field, in a manner which has received the approbation of the Major-General commanding the Army of the Potomac.

A portion of these officers were detailed for, and are employed upon, the duties above mentioned. Seven officers, with fourteen men, were sent, in obedience to orders from the War Department, with the expeditionary corps, under General T. W. Sherman. From official reports received from Port Royal, South Carolina, these officers seem to have rendered efficient and valuable service, with the fleet, upon this occasion, by the ease with which communication was held between the vessels when at sea, and between the vessels and the shore when in harbor, or when disembarking troops.

In considering the service rendered with the fleet, it ought to be borne in mind, that the ordinary naval flag signals were used by officers of the navy for communication, in addition to those methods of communication which came especially within the province of the Acting Signal Officers of the Army.

The concurrent testimony of every General of the army, with whose troops signals have been used, and of every officer who has given to the subject the attention to examine it, has been, so far as I am informed, in favor of the continuance of its use, and of its diffusion throughout the service, with as much rapidity as may be practicable.

In no instance have the officers instructed failed to do everything it was promised they should do. In many instances, they have, by far, excelled what was proposed in their behalf.

In this view of the success attained, I respectfully recommend, that, with the concurrence of the General-in-Chief, steps be taken to render the use of signals in the service general.

1st. That, to this end, the study and the practice of the use of approved signals and modes of telegraphic communication, of whatever character, be made a part of the course of instruction at the Military Academy of the United States at West Point.

This study, while eminently of a branch of military knowledge, is so easy, and need occupy so little time, that its addition to the present course is really practicable. Of the advantages to result from this addition, the war in the Crimea, and the conflicts of the present rebellion, have afforded sufficient evidence.

2d. That for the force now in the field to suppress the existing rebellion, officers be detailed to organize and instruct signal parties, or corps, with every army, or corps of an army, that is, or may be, in the service of the United States. The officers detailed and instructed for signal service, to be equipped from supplies to be purchased by the Signal Office of the Army, and to be accountable to the United States, through him, for their equipment. These officers to serve, after they shall have been instructed and equipped, as the General commanding may direct, either combined in parties, doing none but signal duty, as when an engagement is impending, or distributed to, and serving with, the regiments from which they may have been detailed; in this latter case, the signal duty being incidental, and in addition to, the company duties.

A corps of signal officers is now instructed. These officers can be distributed as instructors. In three months from the day on which the course above recommended is decided upon, and ordered, every brigade in the service can be supplied with the means for signal communication.

The successful use of field signals by the rebel forces in the battles of July 18th and July 21st, warns us, that if we are to meet them on equal terms, organizations of this kind are necessary.

If signals are used as they ought to be, during the existing rebellion, a number of signal officers will be constantly on duty. It is not possible to find better material for this duty, than can be found among the regimental officers of volunteers. They are, however, when detailed, subject to a peculiar hardship. By their absence from their companies, they lose the chances of promotion by election. There is now no path open for their advancement by their services, no matter how distinguished on this especial duty. This is not just.

If officers are needed by the United States for this service, and are expected to risk their lives in its discharge, they ought to be fairly provided for. If there are fears that there might be thus fastened upon the people of the United States a number of offices sinecure, the offices may be made to terminate with the war, or at the will of the President.

With a view to the formation of a temporary corps, to serve during the present emergency, I would recommend the enactment, by Congress, of an act authorizing the President to appoint, upon the recommendation of the General commanding, and for service during the present war, so many signal officers, with the rank of Captains or Lieutenants, and so many enlisted men as non-commissioned signal officers, as he may deem necessary; provided, that the number of Captains shall not exceed one for each military department; and provided further, that every officer shall be, before receiving his appointment, examined and approved by a competent military board, convened for that purpose.

The total of appropriations by Congress for the period from June 30th, 1860, have been seven thousand (\$7,000) dollars. There has been expended, up to the present date, for the equipment and supply of the parties above enumerated, commencing with the service in New Mexico, for the use of signals in the field, and the furnishing the supply train for the Army of the Potomac, the sum of six thousand four hundred and fifty-two dollars and five cents (\$6,452 05.) Some of these supplies were purchased under the pressure of an instant necessity, and, therefore, at a greater expense than need otherwise have been incurred. There remains unexpended, and to the credit of the United States, the sum of five hundred and forty-seven dollars and ninety-five cents (\$547 95.) The estimates (a total of \$5,000) submitted before the last session of Congress, did not contemplate so great an extension of the use of signals, as has been made necessary by the large forces afterwards called into the service, by the military operations since and now in progress.

The total cost of one complete set of day and night signal apparatus for each officer, is thirty (\$30) dollars

The cost of the glasses with which each is furnished, is from fourteen (\$14) to thirty (\$30) dollars. The cost of keeping each set of apparatus in use in the field, may be estimated at ten (\$10) dollars per set per year.

To supply all the forces now in the field—that is, to equip them for the first time—during the ensuing year, for the purchase of such signal apparatus, equipments, lights, and stores, as may



be necessary, I recommend that the appropriation of twenty thousand (\$20,000) dollars be asked for. For contingent expenses, one thousand (\$1,000) dollars.

#### COUNTERSIGN SIGNALS.

Serious and sad loss has happened to the troops of the United States, on more than one occasion, since the outbreak of this rebellion, by the collision of friendly troops.

The attention of the General commanding the Army of the Potomac was early called to this matter. Under instructions emanating from him, a plan of countersign signals has been devised, which will, in my opinion, render such collision impossible. These signals will be furnished to every regiment of the Army of the Potomac. I recommend that such signals be introduced into all the armies of the United States.

At a time when almost every family has sent its representative to the war, it is but right that every safeguard should be given, that precious lives will not be sacrificed, through the want of provision, or by carelessness and inattention.

The equipments and stores for countersign signals have been furnished, on special requisition, by the Ordnance Department.

#### PORTABLE AND FLYING ELECTRIC TELEGRAPH.

On June 27th, 1861, I submitted an estimate for the sum of ten thousand (\$10,000) dollars, to be expended in the construction of moveable (portable and flying) electric telegraphs. For reasons known to the Hon. Secretary of War, this estimate was not submitted to Congress.

At the battle of Manassas, there were no portable or flying telegraphs. Soon after the battle, on August 6th, 1861, I submitted a proposition for the construction, and use with the army in the field, of portable and flying telegraphs. This paper endorsed by General McDowell, commanding Department of Northeast Virginia, and approved by Major-General McClellan, then commanding Division of Potomac, was not returned from the

office of the Secretary of War. On August 17th, 1861, I was authorized, in a letter conveying other orders, to purchase a small telegraphic train. Acting upon this authority, I have caused to be constructed model reels and specimens of portable telegraphs.

I have been delayed in the discharge of this duty, because no sum of money was distinctly placed at my disposal, and no direct and explicit orders gave me the powers I needed, and had asked, for the organization and equipment of the telegraphic train. To obviate such difficulty in future, I recommend that an appropriation of thirty thousand (\$30,000) dollars be asked from Congress; this sum to be expended, under the direction of the Signal Officer, in the construction and equipment of portable and flying telegraphs, to be used with the different armies of the United States.

The experiments I have caused to be made, render it certain that moveable electric apparatus can be made of great simplicity, and at reasonable rates; that such apparatus can, it is probable, be so constructed and arranged as to be worked by any intelligent person, who can read and write, with very little previous experience or practice; and that with properly organized parties, it can be extended between designated points with sufficient speed, and in so simple a manner, as to render it practicable to use such telegraphs everywhere with the army.

The organization of such parties, which can be detailed from the regiments, and their equipment with perfect electric apparatus, promises such great advantages to the service, that I ask for this subject the careful consideration of the Secretary of War.

I inclose herewith, in brief, the estimates of sums required.

I am, Sir, very respectfully

Your obedient servant,

(Signed,)

ALBERT J. MYER,

Major, Signal Officer, U. S. A.

HON. SIMON CAMERON,

Secretary of War.

# ***ANNUAL REPORT***

OF THE

**SIGNAL OFFICER OF THE ARMY**

TO THE

**SECRETARY OF WAR.**

---

WASHINGTON, D. C.  
1861.



# REPORT.

---

HEADQUARTERS ARMY OF THE POTOMAC,  
Office of the Signal Officer, Washington, Nov. 30, 1861. }

SIR: I have the honor to submit the following summary report of signal operations, together with estimates for signal supplies for the proper equipment of the Army of the United States, for the period ending June 30th, 1862.

A report in detail, accompanied by official documents, will be laid before the Secretary of War as soon as is practicable. The pressure of other duties will prohibit the preparation of this report before the session of Congress.

At the breaking out of the existing rebellion, the Navajo campaign had just terminated. Military signals were in frequent use with the troops operating in the Navajo country, in the winter of 1860-61, and were used, under almost all circumstances of location, with expeditions in the Rocky Mountains. They were also used in the vicinity of Santa Fe.

Of the character and success of this use, the official reports of Lieutenant-Colonel E. R. S. Canby, commanding the Navajo expedition; of Colonel Th. T. Fauntleroy, commanding the Department of New Mexico; and of Colonel Loring, who afterwards commanded the same Department, afford, perhaps, the best commentary. These reports were duly submitted, through the Adjutant General of the Army.

The Signal Officer was relieved from duty in the department of New Mexico on May 6th, 1861. On June 10th, 1861, the organization and instruction of a signal party were commenced at Fortress Monroe. On June 26th, Fortress Monroe and the detached post of Newport News were put in communication, by signals; and permanent signal parties were stationed at each. These parties are still retained upon their stations.

Signals were used in Hampton Roads, to report the range of shells fired from the Rip Raps upon the enemy's battery at Sewell's Point. Signals were successfully employed upon several minor occasions.

On July 17th, 1861, I was ordered to report to General McDowell, then commanding the Department of Northeast Virginia. I reported to General McDowell at Centreville, July 21st, 1861. On July 22d, 1861, I returned to Washington. August 17th, 1861, I was assigned to duty as a member of the staff of General McClellan, then commanding the Division of the Potomac. On the same day, I was ordered, in instructions from the War Department, to open signal communication between the headquarters of Generals Banks and Stone and troops at and near Washington.

There was, at this time, attached to the Army of the Potomac, besides myself, but one instructed signal officer. There were no signal stores. Two other officers were summoned from Fortress Monroe. On August 26th, the party arrived at General Banks's headquarters, then at Hyattstown. On August 28th, signal communication was opened between his headquarters and those of General Stone, then at Poolesville. Signal parties were, on the same day, formed for instruction, at the headquarters of the Generals mentioned. On August 30th, the Signal Camp of Instruction was established at Georgetown.

Observatory stations were opened as fast as officers were fitted to occupy them. These stations have been extended as occasion has been given. They have been worked from Maryland Heights to Georgetown; and at a few hours' notice, they can be opened from below Fort Washington to Maryland Heights. The whole of Virginia opposite our lines is, for this extent, when desired, under the glasses of officers, who can report any movements of an enemy.

Fifty officers were detailed for signal duty with the Army of the Potomac. After due examination, forty-two of these were instructed in signals. The signal party has been organized, equipped, and instructed for instant service in the field, in a manner which has received the approbation of the Major-General commanding the Army of the Potomac.

A portion of these officers were detailed for, and are employed upon, the duties above mentioned. Seven officers, with fourteen men, were sent, in obedience to orders from the War Department, with the expeditionary corps, under General T. W. Sherman. From official reports received from Port Royal, South Carolina, these officers seem to have rendered efficient and valuable service, with the fleet, upon this occasion, by the ease with which communication was held between the vessels when at sea, and between the vessels and the shore when in harbor, or when disembarking troops.

In considering the service rendered with the fleet, it ought to be borne in mind, that the ordinary naval flag signals were used by officers of the navy for communication, in addition to those methods of communication which came especially within the province of the Acting Signal Officers of the Army.

The concurrent testimony of every General of the army, with whose troops signals have been used, and of every officer who has given to the subject the attention to examine it, has been, so far as I am informed, in favor of the continuance of its use, and of its diffusion throughout the service, with as much rapidity as may be practicable.

In no instance have the officers instructed failed to do everything it was promised they should do. In many instances, they have, by far, excelled what was proposed in their behalf.

In this view of the success attained, I respectfully recommend, that, with the concurrence of the General-in-Chief, steps be taken to render the use of signals in the service general.

1st. That, to this end, the study and the practice of the use of approved signals and modes of telegraphic communication, of whatever character, be made a part of the course of instruction at the Military Academy of the United States at West Point.

This study, while eminently of a branch of military knowledge, is so easy, and need occupy so little time, that its addition to the present course is really practicable. Of the advantages to result from this addition, the war in the Crimea, and the conflicts of the present rebellion, have afforded sufficient evidence.

2d. That for the force now in the field to suppress the existing rebellion, officers be detailed to organize and instruct signal parties, or corps, with every army, or corps of an army, that is, or may be, in the service of the United States. The officers detailed and instructed for signal service, to be equipped from supplies to be purchased by the Signal Office of the Army, and to be accountable to the United States, through him, for their equipment. These officers to serve, after they shall have been instructed and equipped, as the General commanding may direct, either combined in parties, doing none but signal duty, as when an engagement is impending, or distributed to, and serving with, the regiments from which they may have been detailed; in this latter case, the signal duty being incidental, and in addition to, the company duties.

A corps of signal officers is now instructed. These officers can be distributed as instructors. In three months from the day on which the course above recommended is decided upon, and ordered, every brigade in the service can be supplied with the means for signal communication.

The successful use of field signals by the rebel forces in the battles of July 18th and July 21st, warns us, that if we are to meet them on equal terms, organizations of this kind are necessary.

If signals are used as they ought to be, during the existing rebellion, a number of signal officers will be constantly on duty. It is not possible to find better material for this duty, than can be found among the regimental officers of volunteers. They are, however, when detailed, subject to a peculiar hardship. By their absence from their companies, they lose the chances of promotion by election. There is now no path open for their advancement by their services, no matter how distinguished on this especial duty. This is not just.

If officers are needed by the United States for this service, and are expected to risk their lives in its discharge, they ought to be fairly provided for. If there are fears that there might be thus fastened upon the people of the United States a number of offices sinecure, the offices may be made to terminate with the war, or at the will of the President.



With a view to the formation of a temporary corps, to serve during the present emergency, I would recommend the enactment, by Congress, of an act authorizing the President to appoint, upon the recommendation of the General commanding, and for service during the present war, so many signal officers, with the rank of Captains or Lieutenants, and so many enlisted men as non-commissioned signal officers, as he may deem necessary; provided, that the number of Captains shall not exceed one for each military department; and provided further, that every officer shall be, before receiving his appointment, examined and approved by a competent military board, convened for that purpose.

The total of appropriations by Congress for the period from June 30th, 1860, have been seven thousand (\$7,000) dollars. There has been expended, up to the present date, for the equipment and supply of the parties above enumerated, commencing with the service in New Mexico, for the use of signals in the field, and the furnishing the supply train for the Army of the Potomac, the sum of six thousand four hundred and fifty-two dollars and five cents (\$6,452 05.) Some of these supplies were purchased under the pressure of an instant necessity, and, therefore, at a greater expense than need otherwise have been incurred. There remains unexpended, and to the credit of the United States, the sum of five hundred and forty-seven dollars and ninety-five cents (\$547 95.) The estimates (a total of \$5,000) submitted before the last session of Congress, did not contemplate so great an extension of the use of signals, as has been made necessary by the large forces afterwards called into the service, by the military operations since and now in progress.

The total cost of one complete set of day and night signal apparatus for each officer, is thirty (\$30) dollars

The cost of the glasses with which each is furnished, is from fourteen (\$14) to thirty (\$30) dollars. The cost of keeping each set of apparatus in use in the field, may be estimated at ten (\$10) dollars per set per year.

To supply all the forces now in the field—that is, to equip them for the first time—during the ensuing year, for the purchase of such signal apparatus, equipments, lights, and stores, as may

be necessary, I recommend that the appropriation of twenty thousand (\$20,000) dollars be asked for. For contingent expenses, one thousand (\$1,000) dollars.

#### COUNTERSIGN SIGNALS.

Serious and sad loss has happened to the troops of the United States, on more than one occasion, since the outbreak of this rebellion, by the collision of friendly troops.

The attention of the General commanding the Army of the Potomac was early called to this matter. Under instructions emanating from him, a plan of countersign signals has been devised, which will, in my opinion, render such collision impossible. These signals will be furnished to every regiment of the Army of the Potomac. I recommend that such signals be introduced into all the armies of the United States.

At a time when almost every family has sent its representative to the war, it is but right that every safeguard should be given, that precious lives will not be sacrificed, through the want of provision, or by carelessness and inattention.

The equipments and stores for countersign signals have been furnished, on special requisition, by the Ordnance Department.

#### PORTABLE AND FLYING ELECTRIC TELEGRAPH.

On June 27th, 1861, I submitted an estimate for the sum of ten thousand (\$10,000) dollars, to be expended in the construction of moveable (portable and flying) electric telegraphs. For reasons known to the Hon. Secretary of War, this estimate was not submitted to Congress.

At the battle of Manassas, there were no portable or flying telegraphs. Soon after the battle, on August 6th, 1861, I submitted a proposition for the construction, and use with the army in the field, of portable and flying telegraphs. This paper endorsed by General McDowell, commanding Department of Northeast Virginia, and approved by Major-General McClellan, then commanding Division of Potomac, was not returned from the

office of the Secretary of War. On August 17th, 1861, I was authorized, in a letter conveying other orders, to purchase a small telegraphic train. Acting upon this authority, I have caused to be constructed model reels and specimens of portable telegraphs.

I have been delayed in the discharge of this duty, because no sum of money was distinctly placed at my disposal, and no direct and explicit orders gave me the powers I needed, and had asked, for the organization and equipment of the telegraphic train. To obviate such difficulty in future, I recommend that an appropriation of thirty thousand (\$30,000) dollars be asked from Congress; this sum to be expended, under the direction of the Signal Officer, in the construction and equipment of portable and flying telegraphs, to be used with the different armies of the United States.

The experiments I have caused to be made, render it certain that moveable electric apparatus can be made of great simplicity, and at reasonable rates; that such apparatus can, it is probable, be so constructed and arranged as to be worked by any intelligent person, who can read and write, with very little previous experience or practice; and that with properly organized parties, it can be extended between designated points with sufficient speed, and in so simple a manner, as to render it practicable to use such telegraphs everywhere with the army.

The organization of such parties, which can be detailed from the regiments, and their equipment with perfect electric apparatus, promises such great advantages to the service, that I ask for this subject the careful consideration of the Secretary of War.

I inclose herewith, in brief, the estimates of sums required.

I am, Sir, very respectfully

Your obedient servant,

(Signed,)

ALBERT J. MYER,

Major, Signal Officer, U. S. A.

HON. SIMON CAMERON,

Secretary of War.

# ***ANNUAL REPORT***

OF THE

**SIGNAL OFFICER OF THE ARMY**

TO THE

**SECRETARY OF WAR.**

---

**WASHINGTON, D. C.  
1862.**



# REPORT.

OFFICE OF THE SIGNAL OFFICER,

*Washington, D. C., November 10th, 1862.*

SIR :

The order of the Secretary of War, requiring the Annual Report of the Signal Officer, was received by me a few days since, on resuming the charge of my office, in Washington, after some months' service in the field, with the "Army of the Potomac."

The period within which the report must be rendered, will permit of a summary only. A report in detail will be prepared at this office, and, with accompanying documents, will be laid before the Secretary of War, as soon as it can be completed.

The total number of officers detailed and under instruction as Acting Signal Officers, in the different Military Departments of the United States, since the date of my last Annual Report, (Nov. 30th, 1861,) has been one hundred and ninety-nine (199).

Of this number, one hundred and forty-six (146) have been retained for Signal Service. They have been distributed as follows :

As the Signal Corps of the Army of the Potomac.....	* * *	officers.
As the Signal Corps of the Army of the Mississippi.....	* * *	do.
* * * * *		
As the Signal Corps of the Department of North Carolina..	* * *	do.
As the Signal Corps, Department of South Carolina.....	* * *	do.
* * * * *		
As the Signal Corps at "Fortress Monroe," Va.....	* * *	do.
As the Signal Corps, Department of the Gulf.....	* * *	do.
As the Signal Corps at Yorktown, Va.....	* * *	do.
* * * * *		
On Special Service, or awaiting orders.....	* * *	do.

## MODE OF SERVICE.

The Corps has served under different rules with different armies. With some it has been broken in small parties, scattered with the various divisions; with others, the officers have been kept together, and have acted under a chief, who orders all movements. Experience has seemed to indicate, that the duties of the Corps with an active army, are most efficiently rendered when these services are controlled by one officer, who, properly informed at headquarters of movements contemplated or making, understandingly takes steps to place his officers where their labors may be most useful.

## REPORTS FROM DETACHMENTS.

The detachments of the Corps with the armies in Virginia and Maryland, in North Carolina, in South Carolina, and in the Department of the Gulf, have had the fortune to be with armies which have changed but little in organization. The reports from these detachments have been steadily favorable.

The detachments serving in the Valley of the Mississippi, and in the departments west of the Alleghanies, have kept their organization, and rendered such service as they could under great difficulties.

The forming and control of these parties was, of necessity, given to young officers of volunteers, themselves hurriedly instructed and without any military experience, who found themselves at once in the face of the enemy, and involved in all the complications of the organization, instruction, equipment, and manœuvring in actual war, of a corps whose duties were untried and novel, and in the management of which they could have for guidance neither the advice of skillful officers, nor rules laid down in books.

The armies were immense and new. They were sometimes concentrated, and sometimes scattered. The changes of command and of organization were frequent. Signal parties were put upon duty, or relieved from duty, and the members returned

to the line, at the will of various Generals. Sometimes by proper authority, sometimes by authority ignorantly assumed. Telescopes and Signal Equipments were turned in, by order, to Quartermasters, and to officers not responsible to this office. They cannot now be traced.

The parties became so reduced and so situated, that it seemed as if they must be ineffective. They have been saved from being so by the exertions of the few officers left upon the duty, and by the wisdom of some of the senior Generals.

The Order of the Secretary of War (No. 68), issued June 18th, 1862, produced here, as in the Eastern Departments, good effects.

The recently threatened rebel attacks upon the river towns, which caused the services of Signal Officers to be anxiously sought for, and a subsequent order of the General-in-chief of the Army in reference of the reorganization of Signal parties in the departments of the West, have placed the service in these departments in an improved position. It can be rendered there as effective as in the East.

The reports show, that, with all the obstacles, the Detachments of the Signal Corps, in these departments, were represented by officers who did some little service at the battle of Shiloh; that to the labors of some of its members, is greatly due the success of the perfectly combined operations of the Land and Naval forces at the Fort at St. Charles, White river; that a party served with the forces under General Morgan, recently hemmed in at Cumberland Gap, in a manner to meet the approbation of that General; while at the late battle at Chaplin Mills, near Perryville, Ky., the officers of the Corps, with General C. C. Gilbert and General Rousseau, secured the commendation of those officers.

#### THE DUTIES OF SIGNAL OFFICERS.

The duties of Signal Officers have been those of reconnoissance and of communication.

The reconnoissances have had the advantage of being, in part, telescopic. It is the duty of Signal Officers to select those points from which the force and movements of the enemy can be best



seen, and there to be always on the watch. They are equipped with powerful glasses.

They have been instructed to report by courier, when the report could not be better made, every fact of value within their observation.

The communication, simply, has been when Commanders have wished to dispatch, by Signals, between islands; or over water or impassable country; between distant points on shore; or between Land and Naval forces co-operating; or between the vessels of a Fleet.

There have been both reconnoissance and communication when from Signal Stations of Observation elevated on towers, trees, or mountains, there has been communication by signals, to other stations near headquarters, or to stations upon electric lines, or to those whence couriers could readily ride. The cases are not infrequent, where, on the field of battle, the Corps has been called upon for all these duties.

On the march of moving armies, in the presence of the enemy, the corps has assimilated in its duties, so far as the education and military experience of its officers made practicable, the duties of a corps of guides; and moving with the advance or on the flanks of the army, and seeking everywhere the best points of view, have given such aid to the movements as their observation made practicable.

#### LIST OF BATTLES AND EXPEDITIONS.

The officers and men of the Corps have taken part, by detachments, under fire or in action, in the expedition to Port Royal, and capture of Forts Walker and Beauregard; the Burnside expedition to North Carolina—Roanoke Island; battle at Newbern; siege of Fort Pulaski; expedition to Jacksonville, Florida; siege of Fort Macon, North Carolina; expedition to Stono River, South Carolina; battle of James Island, South Carolina; General Banks' retreat from Strasburg, Virginia, to Williamsport, Maryland; action at Culpepper Court-house, Virginia; expedition to Columbia, North Carolina; battle at St. Charles, White river, Arkansas;

battle of Winchester, Virginia; the movement of the Army of the Potomac from Alexandria to "Fortress Monroe;" siege of Yorktown; battle of Williamsburg; action at Mechanicsville; battle of Hanover Court-house; battle of Gaines's Mills; battle of Mechanicsville, (June 23d, 1862,); battle of Williamsburg road; at evacuation of White House; battle at Savage Station; battle at Malvern Hill, (June 30th, and July 1st, 1862,); battle at Malvern Hill, (August 5th, 1862,); engagement near Harrison's Landing, Virginia; with the Fleet in James river, operating with the "Army of the Potomac;" with the Fleet in York river, operating with the "Army of the Potomac;" battle of Cedar Mountain; with the "Army of Virginia," falling back from the Rappahannock to Washington; engagement at Catoclin Pass; battle of South Mountain; battle of Antietam; at Cumberland Gap; battle of Chaplin Hill, near Perryville, Kentucky; expedition to Pocotoligo.

The Corps has had part in other marches and expeditions not mentioned.

There is, at this office, official information of commendatory mention of the services and conduct of the Signal Officers serving with them from the following officers, viz:

Brigadier General J. J. Stevens.  
 Major General A. E. Burnside.  
 Major General George B. McClellan.  
 Major General John Pope.  
 Major General N. P. Banks.  
 Major General E. D. Keys.  
 Major General J. G. Parke.  
 Major General Fitz John Porter.  
 Major General J. G. Foster.  
 Major General H. G. Wright.  
 Major General S. R. Curtis.  
 Brigadier General L. H. Rousseau.  
 Brigadier General James Shields.  
 Brigadier General E. L. Veile.

Acting Rear Admiral Charles Wilkes, U. S. N., commanding fleet in James river.

Captain John Rogers, U. S. N., commanding fleet in James river, at Malvern Hill and Harrison's Landing.

Commander C. R. P. Rogers, U. S. N., commanding Naval forces at Port Royal Ferry.

Commander Max Woodhull, commanding steamer "Cimerone."

Commander G. H. Scott, U. S. N., commanding gunboat "Maratanza."

Commodore William Smith, U. S. N., commanding fleet at York river, at Yorktown and West Point.

It would not be natural that there should be no adverse reports. These, however, would not be so apt to reach this office. They would seem to have originated those of which there is information, either because there were not opportunities for the service of the parties, because they were not properly under the control of the officer commanding, were not properly equipped, or because the officers did not know how to use them.

When it is considered that these officers, whose duties are of a character which requires some scientific education and some actual military experience, have been taken, by detail, from forces hastily collected; and with no experience, have been put in the field after brief instruction; some of them when there was not a dollar appropriated for their equipments; others so situated that their first practice in the open air was when engaging the enemy; when it is considered, that, thus unprepared, they have gone into battles and through long campaigns under commanding officers who knew at first nothing of this particular duty, and whose minds were burdened with the management of great and new armies, it will be admitted, I think, that in such success as they have achieved, they have done fully their share of duty, and have rendered their proportion of service.

#### INSTRUCTION IN SIGNALS AT NAVAL AND MILITARY ACADEMIES.

The successful action of the Navy at Port Royal Ferry, where, for the first time in battle, their co-operation with the army was assured by Signals, together with the employment of this communication subsequently by Signal officers of the army stationed on

vessels in various expeditions, caused the attention of the Navy Department to be given to the subject.

On February 19th, 1862, a letter was addressed to the Secretary of War by the Secretary of the Navy, stating, that "it is the wish of this department (Naval) that the System of Signals now in use in the army of the United States, be adopted in the Navy; and that instructions in their use be made a part of the regular course of instructions for the senior class of Acting Midshipmen at the United States Naval Academy."

It was further requested, that "the Signal Officer of the Army be authorized to make, in conjunction with officers of the Navy, such arrangements as may be necessary for this purpose."

In compliance with this request, Lieut. S. B. Luce, U. S. Navy, one of the instructors of the Naval Academy, detailed for this duty, was instructed in a few brief lessons.

I am not informed to what extent the instruction has been carried at the Naval Academy.

I renew here my recommendation of last year, that the study of Field Signals, and of improved mode of Telegraphing be made a part of the regular course of instruction at the Military Academy at West Point.

This procedure would tend to rapidly diffuse the knowledge and the use of Signals throughout the Service.

I am of the opinion, that, at the commencement of such a course, at either the Naval or Military Academy, there will be needed, for a time, the services of a thoroughly-practiced Signal officer, who can devote his attention to this branch of instruction. I recommend that such officer be detailed from the Signal Corps of the army.

#### EXPERIMENTS WITH SIGNALS AND SIGNAL APPARATUS.

A number of plans for improvement in Signals and Signal Apparatus have been, during the last year, submitted at this office. It has been a rule to considerately examine, and cause to be tested, any which seemed to be of value.

There have been thus examined Signal Rockets, Composition Fires, Telescopes, and Binocular Glasses; Signal Pistols, Modes

of Discharging Lights, Instruments for Electric Telegraphing, Insulated Wires for Field Use, and Plans for Using Field Telegraphs.

From these experiments have been gained experience and results of some value.

I recommend, that, for the ensuing year, the sum of \* \*  
 \* \* be estimated for such trials of this character as may be necessary.

#### COUNTERSIGN SIGNALS.

At the date of my last report, a plan of Countersign Signals, by which to avoid the collision of friendly regiments, had just been adopted.

These Signals, with instructions as to use, were issued to more than two hundred regiments. It is certain, so far as I can judge, that accidental collisions can be made almost impossible; and friendly regiments can be distinguished, either in battle or on the march. But in an army of new troops, to properly discharge this duty, it needs that there be attached at least one Signal officer to a brigade, to supervise this, with other Signal Service.

This proportion was estimated and provided for in an act last year submitted to Congress.

No matter what the danger, other officers cannot, in such armies as ours in the field, properly attend to this duty.

The failure of Congress to pass, at its last session, the act organizing the Corps, rendered a detail of this kind impossible. It can still less be given with the army increased as now.

In view of these facts, and the difficulties attending the immediate furnishing of supplies, I have recently recommended the suspension of the use of Countersign Signals in the Army of the Potomac. If the management of Countersign Signals is not properly superintended, they become a source of danger.

If it is not the will of Congress to appoint suitable officers for this duty, and in numbers sufficient, I recommend that it be not extended.

The loss of life from accidental firing, will, it is probable, not be greater than it might be made if Signals were placed in the hands of regiments and not rightly used.

The sum placed in my estimate to enable their use to be continued in some armies, and increased, should it be desirable to do so, is       \*       \*       \*       \*       dollars.

It is advisable that this Office should not be without the means for this purpose.

#### FIELD TELEGRAPHS.

In my report of November 30, 1861, submitted through the then General-in-Chief, I related the efforts made, from the beginning of this war, to bring into the use of our armies Movable Electric Trains. Estimates were at the same time submitted.

It was then, and for some time after, difficult to induce a wise or even careful consideration of the subject. One Train was, however, partially completed.

With the first movements of the Army of the Potomac, the want of such trains was felt. On March 30th, 1862, I again submitted estimates approved by the General commanding the "Army of the Potomac," for funds to be placed in the hands of the Signal Officer for the construction of such apparatus. No information has been received in regard to these estimates.

The incomplete train was used by the Signal Corps, with satisfactory results, in the campaign upon the peninsula, in Virginia. The purchase of three trains of improved construction, each bearing two instruments and five miles of insulated wire, was, in consequence, ordered by the General commanding.

These trains are now in the field, accompanying the march of the "Army of the Potomac."

The difficulty attending the use of Electric Telegraphs with armies on prolonged marches and on battle-fields, has been, that they required skilled operators, and the electric batteries were difficult of transportation.

These trains are equipped with instruments which work without batteries, and can be used after one day's practice, by almost any soldier who can easily read and write.

Such instruments were before unknown. The call for trains of this description, led, through the agency of Mr. H. J. Rogers, to their invention by Mr. G. W. Beardslee, of New York.

The organization recommended for each train has been one commissioned officer, four sergeants as operators, and twelve men.

The cost of each train has been \* \* \* \* dollars. This cost may be reduced. The use of such trains, or of the instruments, when placed in the hands of soldiers, and with proper military organization, promises advantage to the army. I recommend its further development. I recommend, also, that an appropriation of \* \* \* \* be asked for this purpose.

#### THE NEED OF AN ORGANIZATION OF THE SIGNAL CORPS.

The officers of the acting Signal Corps serve under peculiar hardships. There is no rest for them from the first movement of an army until it returns again to permanent quarters. Their orders necessitate their watchfulness day and night.

Scattered widely over extents of country on lonely stations; hurried singly or by twos from point to point miles distant; kept near the enemy on the advance that they may watch his motions; kept near him on the retreat that they may report his advance; stationed beyond picket-lines; sent out with scouts and skirmishers to reconnoitre; placed with batteries to report their shots; obliged to hold their stations under fire in battle on penalty of disgrace; exposed by day and night, in heat and cold and rain; serving on horseback and on foot; on ship and on shore; at mast-heads; in trees; on mountain-tops—they see all the hardships of war with few of its pleasures.

A day of successful battle which brings some rest to others, is to them (but for the, on that day, perhaps, greater personal exposure,) only an episode in the labors which precede and follow it.

The officers who have been on this duty have been, in general, laborious, zealous, and faithful. Their deeds, in a year's service, speak for them. They were ordered on this duty for a time. It has been found expedient to keep them permanently upon it.

Their places are not supplied in their regiments. They are not permitted to leave the Signal Service. Yet for all these young soldiers, gallant as some have shown themselves, there is no

legally defined position, and no chance of legitimate and deserved promotion. It is a right of the officers and men, kept in the Corps, and a right of the regiments to which they belong, that they should be given a Corps Organization. The interests of the United States require it.

The details of an Act for this purpose, with the reasons in full, are too lengthy to be submitted in this paper. They will be laid before the Department.

I earnestly call the attention of the Secretary of War to this statement; and I respectfully recommend that, in his Annual Report he direct to the subject of the organization of the Signal Corps, the consideration of the President and of Congress.

#### CLERKS IN THE OFFICE OF THE SIGNAL OFFICER.

The duties of clerks in this office, have been performed by soldiers, with the pay of extra duty.

The great labor incident to their duties, make it just that they should have the pay of clerks of third class.

I recommend that two clerkships of that class be provided.

ESTIMATES FOR THE SIGNAL SERVICE OF THE UNITED STATES ARMY, FOR  
THE YEAR COMMENCING JULY 1ST, 1863, AND ENDING JUNE 30TH,  
1864.

\* \* \* \* \*

To render the monies appropriated properly available, so that the deficiency in one Estimate may be supplied by the excess, if any may be, of another, the specifying clause in the Appropriation Bill should read:

"For the Signal Service of the United States Army \* \*  
dollars.

\* \* \* \* \*

Very respectfully, sir,

Your obedient servant,

ALBERT J. MYER,

*Signal Officer of the Army.*

To the HON. E. M. STANTON,

*Secretary of War.*